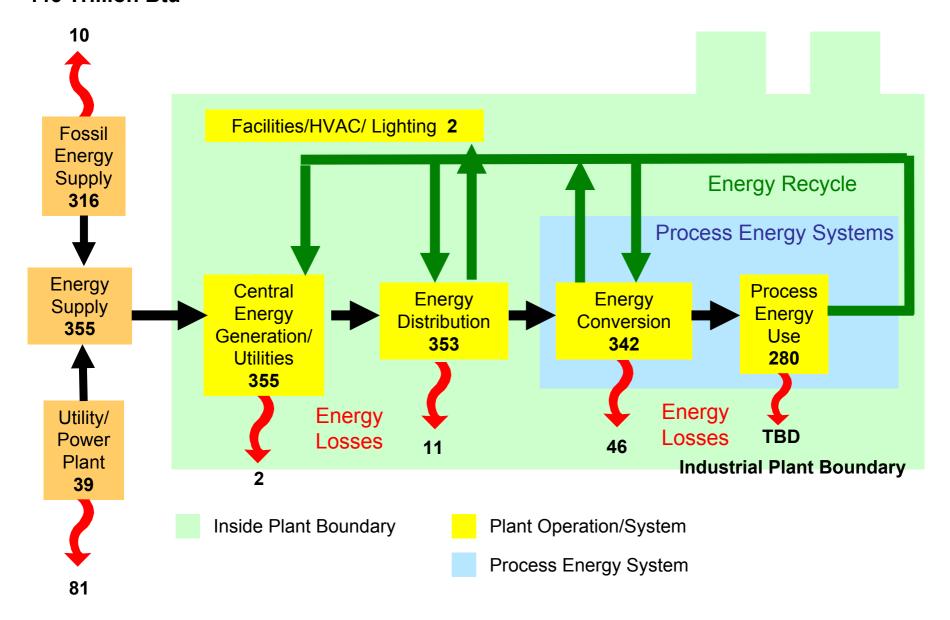
NAICS 327310 Cement Total Energy Input: 446 Trillion Btu



Distribution **NAICS 327310 Cement Total Energy Input:** losses 10 446 Trillion Btu Facilities/HVAC/Lighting 2 **Process Energy Systems** Fossil Recycle Energy Energy Supply Recycle Energy Steam. 316 By-product fuels and heat feedstocks, heat **Energy Conversion Energy** 342 **Central Energy** Supply • Process Heating (297) Generation/ 355 (heat exchangers, condensers, fired Energy **Process Utilities 355** heaters, heat pumps) **Distribution** •Fuels **Energy Use** • Steam Plant (1) **Process Cooling/** 353 280 Purchased Refrigeration (1) • Fossil Power (2) Pyroprocessing Electricity Direct Fuel Supply and Steam • Machine Drives (40) Drying Steam Piping (308)(pumps, compressors, fans, blowers, Mixing Fuel Piping Purchased conveyors, mixers) Grinding • Transmission Lines Electricity (39) • Onsite Transport (3) Waste Handling **Utility/** Power • Other (1) **Plant** 39 Energy Losses **Energy Losses** Losses in boilers and Losses in pipes, valves, Losses due to equipment electricity generation traps, electrical inefficiency (motors, Process energy losses losses 2 transmission lines 11 mechanical drive, waste Electricity from waste heat, flared heat) **62** generation and gases, by-products transmission **TBD Industrial Plant Boundary** losses 81

